SCOTT WOODBURY
DEPUTY ATTORNEY GENERAL
IDAHO PUBLIC UTILITIES COMMISSION
472 WEST WASHINGTON STREET
PO BOX 83720
BOISE, IDAHO 83720-0074
(208) 334-0320
BAR NO. 1895

Street Address for Express Mail:
472 W. WASHINGTON
BOISE, IDAHO 83702-5983

Attorney for the Commission Staff

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE FILING BY IDAHO POWER COMPANY OF ITS 2002 ELECTRIC INTEGRATED RESOURCE PLAN (IRP).	)	**CASE NO. IPC-E-02-8**
	)	**COMMENTS OF THE COMMISSION STAFF**

COMES NOW the Staff of the Idaho Public Utilities Commission, by and through its Attorney of record, Scott Woodbury, Deputy Attorney General, and in response to the Notice of Filing and Notice of Comment Deadline issued on July 18, 2002, submits the following comments.

On June 28, 2002, Idaho Power Company (Idaho Power; Company) filed its year 2002 Integrated Resource Plan (IRP) with the Idaho Public Utilities Commission (Commission). The Company's filing is pursuant to a biennial requirement established in Commission Order No. 22299, Case No. U-1500-165. The IRP describes the Company's loads and resources, provides an overview of technically available resource options including purchases of power from the wholesale market, the acquisition of additional generating resources and, to a lesser extent, pricing options and demand-side management programs.

Under the Company's planning assumptions, the Company contends that existing resources are likely to be insufficient to meet expected peak energy requirements as early as 2003. The Near-Term Action Plan identifies the following six items to address the Company's resource needs:

1. Continue to make seasonal market purchases of 100 aMW in the months of June, July, November and December throughout the planning period.
2. Integrate demand side measures, where economical, to address the short duration peaks of the system load.
3. Solicit proposals and initiate the siting and permitting for approximately 100 MW of a utility-owned and operated peaking resource to be available beginning in 2005.
4. Assuming the Commission approves the Garnet Power Purchase Agreement, Idaho Power will purchase up to 250 MW of capacity and associated energy during periods of peak need beginning June 1, 2005.
5. Proceed with the Brownlee to Oxbow transmission line, expecting the project to be in service in 2005 and increasing the import capabilities from the Pacific Northwest.
6. Proceed with the Shoshone Falls upgrade project, expecting the upgrade to be in service in 2007.

ANALYSIS

Garnet

The 2002 IRP is built around the Garnet Power Purchase Agreement. No other part of the plan is as significant or makes as big of an impact on the Company's load-resource balance. The plan assumes that the Commission would approve the Garnet contract. Based on this assumption, the Company then analyzed four resource strategies for satisfying future resource deficits.

In Case No. IPC-E-01-42, Idaho Power sought approval of a contract to purchase up to 250 MW of capacity and associated energy beginning in 2005. On July 22, 2002, the day before the scheduled hearing, Idaho Power requested to delay the hearing for at least 120 days citing IDACORP's difficulty in obtaining financing for the project. On July 24, 2002, the Commission in open hearing ordered that the case be closed. Reference subsequent Order No. 29085. Idaho

Power is required to report to the Commission by October 23, 2002 on the status of efforts to acquire financing for Garnet and to indicate whether the project will move forward. Idaho Power has previously informed the Commission that it is not optimistic that suitable financing arrangements can be made. Therefore, while Staff cannot be certain that Garnet is no longer a viable option until Idaho Power submits its report, Staff nevertheless concludes that it is unlikely that the Garnet project will be built. As discussed later in greater detail, regardless of the outcome of Garnet, Staff believes the Company's IRP is deficient because it lacks serious consideration of demand-side management (DSM) opportunities. If the Garnet plant is not built, then the IRP is even more deficient because removing Garnet as a resource option will create substantial deficits during peak periods in the summer and winter that almost certainly cannot be satisfied with other alternatives specifically identified in the IRP.

If the Garnet contract is not ultimately a part of the Company's plan, then Staff believes that the IRP, as filed, fails to meet anticipated loads. Although many elements of the IRP are still viable even without Garnet, the elimination of Garnet would be so significant as to seriously limit the usefulness of the IRP. It would not be representative of the Company's actual load resource condition and would fall 250 MW short of meeting load during critical periods. Substantial modifications and additions would have to be made to the plan in order to replace the 250 MW assumed from the Garnet contract. None of the four strategies evaluated in the IRP would likely be viable if an additional 250 MW is needed to replace the Garnet contract.

Planning Criteria

In the 2002 IRP, Idaho Power is emphasizing the 70th percentile water conditions and 70th percentile load conditions for resource planning. The Company has also examined the effects of a 90th percentile water condition. In previous IRPs, a median water-planning criterion was used.

Staff agrees with the decision to plan using more conservative water and load condition criteria. The recent extreme run up in market prices combined with very poor water conditions led to unprecedented rate increases throughout the region. Idaho Power and its ratepayers became painfully aware of the potential risks of relying on the market. Planning based on more conservative criteria results in more resources being added sooner, and obviously comes at a greater cost. However, it may not necessarily prove to be more expensive in the long run. Furthermore, Staff believes that for most customers, the reduction in risk and the decrease in rate volatility is worth any extra cost that may occur.

Load Forecast

In the 2002 IRP, Idaho Power is forecasting loads to grow at a higher rate than in the 2000 IRP. In the 2000 IRP the expected 10-year average annual load growth was forecasted at 1.8 percent. In the 2002 IRP the rate is 2.3 percent. The effect of the higher load forecast is an increase in expected load of 59 aMW in 2005, increasing to 98 aMW in 2010. The growth rate for the Company's system peak increases from 1.4 percent per year in the 2000 IRP to 2.5 percent in the 2002 IRP.

Idaho Power cites several reasons in its 2002 IRP why the forecasted growth rates for annual load and system peak are so much higher now than they were in the 2000 IRP. First, the new forecasted growth rates are based upon a new economic forecast. The economic forecast is developed by an outside consultant and is based on the DRI-WEFA forecast of national and regional economic activity. Second, the method used to develop the forecasts has been refined to predict sales and load figures on a monthly basis, rather than a seasonal or an annual basis. Third, the Company now utilizes a median peak day temperature in its analysis instead of an average day temperature, thus, the Company contends, better reflecting expected temperatures. Finally, modifications have been made to more accurately account for differences between when energy is actually used by customers and when meters are read and bills prepared by the Company.

Except for the comments below on the residential load growth forecast, Staff accepts the sales and load forecast for the 2002 IRP.

Residential Load Growth

On page 9 of its IRP, Idaho Power says that the number of households in Idaho is projected to grow at an annual rate of 2.1% during the 10-year forecast period.[1] But it also says that this growth, combined with reduced consumption per household, results in a 2.4% annual residential load growth projection. Staff notes that if usage per customer is decreasing, then load

---

[1] Idaho Power's statement that it projects an annual 2.1% household growth rate in Idaho for the 10-year forecast period is somewhat inconsistent with IRP Appendix A, *2002 Economic Forecast*, page 16, which shows an average annual Idaho household growth rate of just under 2.0% from 2001 to 2011.

growth should be expected to be lower, not higher, than household growth. Part of the apparent incongruity can be explained by the projected household average growth rate in the counties that Idaho Power serves (2.3%) being higher than that of the entire State (2.0%). But IRP Appendix B, the Sales and Load Forecast, contains an Appendix A that reveals a more important reason for the discrepancy. The *Projected Residential Sales and Load, 2002-2013* shown on page 31 as Table 13 inexplicably shows weather-adjusted kWh per customer increases averaging 3% in 2004 and 2005. Staff has discussed this issue with Idaho Power representatives and we agree that the temporary rate increases in effect since May of 2001 resulted in decreased consumption of electricity and that customers will probably increase their consumption somewhat once the rate increases end. But we also agree that the per customer consumption projected after rates return to normal is probably overstated because consumption is not likely to fully recover to the pre-rate increase levels. Thus, it appears that a modeling glitch is to blame for the kWh per customer usage being projected to be higher in 2005 than it was in 2000.

Disregarding the elasticity of demand effects of the temporary rate increases, Staff notes that projecting the trend of 0.95% average decrease per year that occurred between 1995 and 2000 would result in a projected usage of 12,715 kWh per customer in 2005 rather than the 13,464 kWh shown in Table 13. The difference of 749 kWh for each of the projected 365,000 residential customers calculates to a reduction of 31 aMW in the IRP's 2005 load forecast. Similarly calculated, there would be a reduction of 49 aMW from the forecast for the 435,000 customers in 2013, the end of the forecast period.

Market Purchases

In the 2002 IRP, Idaho Power plans to use market purchases from the Pacific Northwest throughout the planning period to supplement Company resources in June, July, November and December. However, the Company has decided not to rely solely on long-term market purchases beyond 2004 because the delivery of increased market purchases would require substantial investment in additional transmission facilities to relieve constraints. In addition, the Company has recognized the substantial risk associated with over-reliance on the market. Consequently, the level of market purchases called for in the 2002 IRP is reduced from levels assumed in the 2000 IRP.

Staff agrees with Idaho Power's decision to reduce its reliance on the market. Staff has always believed that too much reliance on the market carries excessive risk. This belief proved justified given the events of the past two years. Nevertheless, while too much reliance is undesirable, some reliance is appropriate.

If the Garnet project is abandoned, however, and Idaho Power cannot acquire additional generation in the relatively short time frame available, Staff would be interested in seeing greater scrutiny of possible transmission upgrades that would give Idaho Power better access to the market, especially during critical peak periods. Without further analysis, Staff is unable to judge whether greater reliance on the market is more viable than other alternatives.

Transmission Constraints and Upgrades

One of the most critical conclusions reached in the 2002 IRP is that Idaho Power would experience peak hour deficits in the summer and winter months beginning in 2003 that cannot be met through purchases from the market due to transmission constraints. These identified deficiencies tend to drive the Company's decisions about when and where to acquire new resources. Without Garnet, transmission constraints are even more critical. The 2002 IRP identifies construction of the Brownlee to Oxbow Number 2 transmission line that would add 100 MW of transmission capacity in 2004. Staff suggests that an even closer look at transmission upgrades and additions may be warranted given the extremely short duration of the Company's expected deficits.

To its credit, Idaho Power analyzed the adequacy of its transmission system during peak hour conditions for various water and load conditions. The analysis shows, however, that there are times during the summer beginning in 2003 when the transmission system is not adequate to import power needed to serve load. These peak hour deficits are present even when it is assumed that the Garnet contract will be in place. The IRP offers no specific plans to satisfy these deficits. It is unclear to Staff whether Idaho Power has plans to satisfy load during the brief periods when these conditions occur, or whether it expects either voluntary or involuntary curtailment.

Demand Side Management—Conservation, Efficiency and Pricing Options

Idaho Power mentions demand side management (DSM) in most chapters of its IRP, but other than an irrigation time-of-use pricing trial it does not list or describe any new measures that it is currently investigating to help meet its future resource requirements. On page 58 of the IRP filed on June 28, Idaho Power says that it is waiting for the issue of customer funding for DSM to be resolved before it will initiate DSM measures. Staff notes that in Order No. 29026 issued on May 13, over 6 weeks before the IRP was filed, the Commission approved Idaho Power's proposal to implement a 0.5% surcharge to fund DSM projects. More importantly, the Staff believes the Company's position of waiting for "customer funding" is contrary to the first ordering clause in Order No. 22299, issued January 27, 1989 in Case No. U-1500-165, which requires that electric utilities "[g]ive balanced consideration to demand side and supply side resources when formulating resource plans and when procuring resources." (p. 20). The Commission requirement for balanced consideration of DSM is specifically not contingent upon funding issues being resolved. (Order No. 22299, pp. 18-19).

Staff believes that Idaho Power should have more seriously evaluated the potential of DSM in anticipation of filing its IRP and in response to discovering that it was facing energy and capacity shortages regardless of whether it was uncertain if it would have specific and separate funds for DSM measures. Furthermore, regardless of whether Idaho Power has a positive DSM fund balance, to the extent that DSM opportunities provide a more cost-effective means of balancing demand and supply than does acquiring more generation, transmission and distribution resources, the Company should pursue those opportunities. Unfortunately, based on the IRP and discussions with Company representatives, it is Staff's understanding that Idaho Power does not intend to implement or even investigate any new DSM for which the costs are not paid from designated DSM funds regardless of how cost-effective such DSM may be.

Idaho Power's IRP is based on the assumption that 250 MW during peak months will be available from the Garnet natural gas turbine. With the outcome of the Garnet plant now in doubt and given the transmission constraints on the Brownlee East path discussed in the IRP (p. 20), conservation and time-of-use pricing appear to be much more important resources than the Company envisioned in this IRP.

The IRP says "Demand-side measures and pricing options that target peak-hour demand reduction are more likely to address the peak deficiencies facing Idaho Power Company" and "[d]ue to the nature and timing of the projected peak deficits and transmission overloads, conservation, demand-side measures, and pricing options must be carefully designed and targeted to cost-effectively address the projected deficits." (pp. 46-47). It also says, "it is apparent that projected peak-hour loads, and, ultimately, peak-hour transmission overloads, will drive the need for additional internal generation and targeted demand-side measures that focus on peak reduction" and that the Company will investigate DSM that is "suitable to address the short duration of projected transmission overloads" and "where economically feasible, to address the short duration peaks of the system load." (p. 57). Omitted from the IRP is any suggestion that Idaho Power will investigate or implement any DSM that is not targeted at reducing short duration peak loads.

Staff agrees with the Company that DSM that targets peak-load hours is more valuable than other DSM, however we believe that there are DSM measures that will reduce off-peak energy use more than peak demand that are nonetheless cost-effective. We also note that the Commission's requirement that electric utilities investigate and implement cost-effective DSM is not contingent upon whether such measures reduce peak demand more than off-peak demand. The Staff is aware that the Company is concerned about the revenue effects of reduced sales resulting from DSM, however we believe these concerns should be addressed through a ratemaking process rather than in a least-cost resource planning process.

Although the Company says it recognizes at least the potential benefit of DSM targeted to reducing peak load, it is apparently not fully prepared to pursue those opportunities. In rebuttal testimony (Case No. IPC-E-01-42) filed about two weeks after the IRP was filed, Idaho Power witness Tom Noll said that the Company has not conducted a specific end-use load research study. Furthermore, he said that conducting such a study would be an imprudent expenditure because Idaho Power already knows that its peak loads are coincident with air conditioning and irrigation loads associated with hot weather. (pp. 5-6). Staff believes that during peak load hours, Idaho Power's customers use electricity, often inefficiently, for many purposes other than to cool buildings and irrigate crops. For example, at the same time that residential customers are trying to cool their homes they use hot, inefficient light bulbs for task lighting as they read, bathe, cook meals, and wash and dry dishes and clothes. All of these activities add more air conditioning load in addition to any direct electrical load they may cause. Staff believes many of these activities, as well as various commercial and industrial activities, could and would be done with a more efficient use of electricity and/or deferred to off-peak hours if customers were given sufficient knowledge and incentives to do so.[2] But in order to

[2] For example, according to a Christensen Associates study provided by Idaho Power to its

design the most cost-effective incentives and time-of-use rates, the Company must first conduct an end-use load research study. Idaho Power's Energy Efficiency Advisory Group recently concurred that the Company should conduct such a study. But the Group was both surprised that the Company had not already done this and concerned that using DSM-designated funds to pay the costs of the study would diminish the funds available for DSM measures. Idaho Power representatives indicated to the Group that the Company was not willing to use funding sources other than the DSM surcharge for conducting this study.

Staff believes that an end-use load research study is integral to any IRP that seriously considers cost-effective DSM measures, especially those targeted to peak load hours, and that the cost recovery of this research should not necessarily be restricted to DSM-designated funds. In other words, Staff believes that Idaho Power should have completed end-use load research as part of its IRP. Given the uncertainty of the Garnet plant, the Company should immediately begin exploring potential DSM options in earnest and an end-use load research study is essential to this effort.

Staff believes Idaho Power should reevaluate various demand-side management alternatives, targeted conservation measures and pricing options, this time assigning appropriate value to each alternative's potential to displace or defer the need to add new generation, transmission and distribution facilities. Prior analysis of the irrigation time-of-use pilot and time-of-use rates for residential customers for example, simply considered whether there was enough difference between on-peak and off-peak market prices to save customers and Idaho Power enough money to pay for the investment in meters. The real value of such programs, Staff contends, is their ability to shift usage from on-peak to off-peak hours, thereby reducing Idaho Power's peak hourly load and deferring or displacing the need for new supply-side facilities. Because the Company has determined that peak hourly loads are most critical, Staff believes the Commission should insist that all possible means of reducing peak loads have been intensely scrutinized. The burden should be on Idaho Power to demonstrate why peak load reduction measures are not viable. It is not acceptable for Idaho Power to simply state in the IRP its intention to investigate and "…integrate demand-side measures where economically feasible, to address the short duration peaks of system load." Demand side alternatives should be

---

Energy Advisory Group via e-mail on Aug. 29, 2002, residential variable time-of-use rates have reduced peak demand between 0.6 kW and 6.6 kW per customer, or as much as 60%, during thoroughly evaluated as part of the IRP process, and the IRP should contain the results of that analysis. The IRP process should do far more than simply state that DSM alternatives will be evaluated in the future.

Potential DSM Goals for Idaho Power

The IRP states that the Northwest Power Planning Council (NWPPC) suggests that Idaho Power can contribute about 9 aMW to the Northwest's conservation goal (p. 13). Staff believes Idaho Power has misinterpreted the NWPPC goal in two ways. First, the Northwest goal is an additional 100 aMW for each of the next three years, or 300 aMW total by the third year. Idaho Power's theoretical share of this goal is 9% or 9 aMW additional each year totaling to 27 aMW by the third year.[3] Second, the 300 aMW goal is considered to be an amount that should be easily obtainable during the interim until a new NWPPC power plan is completed, hence the name of the report is "An Efficiency Power Plant in Three Years: An Interim Goal for the Northwest." (Council document 2001-26).

The NWPPC's longer-range, but somewhat out-dated, regional goal for cost-effective conservation in the years 2002 through 2006 ranges from a low of 835 aMW to a high of 2,150 aMW, depending upon electricity demand growth, natural gas prices and water conditions, with 1,535 aMW as the approximate average goal. (Issue Paper 99-18, Bonneville Conservation Acquisition: 2002-2006). Idaho Power's 9% theoretical share of this longer range goal ranges from 75 aMW to 194 aMW. Because Idaho Power has been acquiring much less than its theoretical share of DSM resources over the past several years, the Staff believes that the Company may have the potential to cost-effectively double its proportional share over the next few years. Thus, a range of 150 aMW to 400 aMW may be a reasonable DSM energy goal.

Regarding a DSM peak load reduction goal, Staff notes that according to a recent Christensen Associates report funded by Idaho Power and sent yesterday to its Energy Advisory Group, time-of-use pricing has resulted in as much as a 60% decrease in residential peak demand during critical pricing periods. Staff also notes that participants in Idaho Power's irrigation time-of-use pilot program reduced their consumption of electricity during peak-period hours by 30% in the 2001 irrigation season. Although we doubt that a 60% or even a 30% reduction in system peak load is a realistic goal without draconian measures, a 10% or 330 MW reduction of system

---

critical price periods.

[3] Idaho Power's theoretical 9% share is based upon its proportion of electricity sold in 1999.

peak load may be an achievable three-year goal for time-of-use pricing options and conservation and efficiency measures, including those that target peak hours and those that do not. By the year 2011 a 10% goal translates into 370 MW. (See IRP Technical Appendix, p. 25, 2002 70th Percentile Forecast). Staff estimates that throughout all the hours of a typical year, Idaho Power's system load exceeds 90% of its yearly peak during fewer than 100 hours or about 1% of all hours. A 10% reduction in system load for these few hours may be a reasonable goal depending upon the results of an end-use load research study.

For comparison, Idaho Power says that the peak-hour deficiencies without Garnet occur primarily in June and July, which are the peak load months for irrigation, and are projected to grow from under 100 MW in June of 2002 to 400 MW in July of 2006 and to nearly 800 MW by July of 2011. (Greg Said pre-filed Exhibit No. 6, IPC-E-01-42).

Shoshone Falls

Idaho Power proposes in the 2002 IRP to pursue a 64 MW upgrade of its Shoshone Falls plant. The Company states that this is a non-deferrable project and that its levelized cost is competitive when compared to the costs of other resources.

Staff notes that an upgrade to the Shoshone Falls plant was identified long ago in the 1989, 1991, 1993 and 1995 IRPs as a non-deferrable project and that an upgrade would be pursued in conjunction with the plant's relicensing application. An application for relicensing the plant at its current capacity was filed with the FERC in 1997. The upgrade was initially planned to be complete in 2004. The Shoshone Falls upgrade project disappeared from the 1997 and 2000 IRPs, but has now reappeared in the 2002 IRP.

Staff is not necessarily opposed to upgrading the Shoshone Falls plant. However, Idaho Power has simply not provided enough information in the IRP to judge whether upgrading the plant is reasonable. It would seem that most of the increased generation that could be obtained from the plant would not be during either the peak summer months or the winter months when Idaho Power expects to have deficiencies. Most of the summertime flows are diverted upstream of Shoshone Falls for irrigation purposes. In the wintertime, flows are normally quite low due to the weather. At least on the surface, upgrading the plant seems contrary to Idaho Power's identified needs. More justification for planning to upgrade Shoshone Falls should be provided in the IRP.

Peaking Plants

The IRP indicates that Idaho Power plans to solicit proposals and initiate the siting and permitting of approximately 100 MW of a utility-owned and operated peaking resource to be available beginning in 2005. Clearly, if the Garnet project is not built, this part of the action plan will need to be reevaluated.

Staff also believes that further support needs to be provided for the Company's stated intention to own and operate the plant. Given the short duration of system peaks that this plant needs to satisfy, along with the advantages cited by the Company in the case of Garnet of having an affiliate own and operate the plant, Idaho Power's intention seems contrary to its prior positions. At a minimum, Staff recommends that Idaho Power be required to solicit bids for a variety of ownership options. Private developers should be given the opportunity to compete for the right to build peaking plants. By allowing developers to compete against the Company, the Commission and ratepayers can be better assured that any generation obtained from a peaking plant is acquired at the least cost.

Additions to the IRP

Prior to submitting the final IRP to the Commission, Idaho Power made several additions that were not contained in the draft document. These changes included the following strategies:

1. Making firm purchases for the system (possibly sourced from areas other than the Pacific Northwest) while simultaneously making a non-firm off system sale. This provides Idaho Power with the ability to interrupt the non-firm sale during critical peak-hour conditions.
2. Accelerating construction of the Brownlee to Oxbow Number 2 transmission line from its originally planned completion date in 2005 to the summer of 2004.
3. Continue investigating opportunities for cost effective power exchanges as a method to manage projected surpluses and deficiencies.
4. Incorporate into its planning the short-term peaking capability of the C.J. Strike, Bliss and Lower Salmon hydro plants.

Staff strongly supports these additions to the IRP. Some of them may represent viable alternatives to help relieve peak hourly deficiencies.

RECOMMENDATIONS

Staff recommends that the Commission reject Idaho Power's 2002 IRP. The IRP does not contain a serious discussion of demand-side opportunities and instead relies primarily on a contract for 250 MW of peak power from the now doubtful Garnet facility in addition to market purchases to meet its growing demand. Given transmission constraints on power purchases from outside its own system and the risk of relying upon purchases from Garnet, it appears that the viability of Idaho Power's IRP is in serious jeopardy. Staff recommends that the Commission return the IRP to Idaho Power and require the Company to revise it in recognition of current conditions and to comply with the Commission's 1989 requirement that IRPs include a balanced consideration of demand-side and supply-side resources. (Order No. 22299, 1/27/89).

Respectfully submitted this day of August 2002.

____
Scott Woodbury
Deputy Attorney General

Technical Staff: Rick Sterling
Lynn Anderson

i:umisc:comments/ipce02.8swrps